



Innovation in the Management of Sustainable Environmental Study Tourism Park (TWSL) in Probolinggo

Budi Krisyanto¹; Bambang Supriyono²; Endah Setyowati²; Gatot Ciptadi³

¹ Doctoral Program of Environmental Science, Brawijaya University, Malang, Indonesia

² Department of Public Administration, Faculty of Public Administration, Brawijaya University, Malang, Indonesia

³ Department of Animal Husbandry, Faculty of Animal Science, Brawijaya University, Malang, Indonesia

<http://dx.doi.org/10.18415/ijmmu.v8i2.2289>

Abstract

Local diversity through site-dependent activities such as tourism and resource-based recreation, as well as resource extraction, may offer opportunities for regional development and restructuring. The small number of open spaces in urban areas is a factor in the considerably high pressure of life in the city center. Therefore, the existence of public open spaces in the city center, especially green open spaces in urban areas, is needed because of its function and role as a place for socialization and recreation as well as an alternative rest area with its fresh air in the midst of hectic activities in the city center. Public open space also serves as a place for people to relieve fatigue after a long hard work at a very low cost. This research aims to analyze the effectiveness and the efficiency of the management of the Environmental Study Tourism Park in the City of Probolinggo. The management of urban forest in the former “red are” idle land for ecological, educational and socio-economic purposes as a manifestation of public green open space in urban areas is developed into an Environmental Study Tourism Park. Based on the results of research on the performance of the government/management in providing services to the community regarding environmental education information is considered to be good enough because it is supported by certified experts in accordance with their fields and provide convenience to the community/educational institutions in terms of visiting and learning flora and fauna.

Keywords: *Environmental Study Tourism Park; Effectiveness; Efficiency; Ecology*

I. Introduction

Educational tourism is a program where tourists visit tourist destinations with the main objective of gaining direct learning experience or non-formal education at a tourist destination. Meanwhile, educational tourism contains educational elements that aim to change one's perception into having awareness, responsibility, commitment to environmental and cultural preservation. Educational tourism is a new market opportunity in the tourism service business. (Purnawan and Sudana, 2012). However, with an unbalanced population, structural problem remains (Lundmark, 2010). The small number of open

spaces in urban areas is a factor in the considerably high pressure of life in the city center. Therefore, the existence of public open spaces in the city center, especially green open spaces in urban areas, is needed because of its function and role as a place for socialization and recreation as well as an alternative rest area with its fresh air in the midst of hectic activities in the city center. Public open space also serves as a place for people to relieve fatigue after a long hard work at a very low cost. The existence of urban green open spaces is one of the solutions in improving the quality of the urban environment, with the impact that is most easily felt is the effect on health, comfort, aesthetics and environmental preservation (Sudarwani and Ekaputra, 2017).

The development of Green Open Space (RTH) needs to be established in the public sector, such as the creation of city parks. The strategy of community empowerment, implementation of incentives and disincentive mechanisms, as well as efforts to increase the productivity of green open space (RTH) can encourage its implementation (Widodo et al., 2011). Green open space (RTH), especially in urban areas, has important functions related to ecological, socio-cultural, and aesthetic aspects. As for its provision, it must meet the criteria of an ideal public space such as an accessible location, comfortable, and provides a sense of security for its users. The lack of availability of the amount of public RTH, especially city forests and city parks in downtown areas, will affect the function of urban forests and city parks as public green open spaces (RTH) (Imansari and Khadiyanta, 2015). Whereas spatial planning as a spatial dimension of urban development is an instrument to coordinate urban development in a sustainable manner (Budihardjo, 2005). Sustainable development goals are an important issue in the implementation of regional development. With sustainable development, it is hoped that the harmonization of ecological, social and economic factors will lead to the realization of social welfare.

The integration of the Environmental Agency's Strategic Plan with the Medium-Term Regional Development Plan (RPJMD) of Probolinggo City, in line with the vision of the Mayor of Probolinggo to make Probolinggo as an advanced city of environmental services, prosperous and just as well as the the fourth mission to manifest Probolinggo city into an environmentally friendly service city with infrastructure development of urban areas through improved management of Green Open Spaces is in order to improve the quality of the urban environment through preservation, prevention and control of environmental damage.

Haifeng and Li (2015), states that green open space plays an important role in sustainable and ecological urban development based on multiple environmental, recreational and economic benefits. Building an effective and harmonious urban ecological network and maintaining a sustainable living environment in response to rapid urbanization are key issues that landscape planners need to address. In regards to the objectives of the management policy of the Environmental Study Tourism Park, it is also necessary to emphasize and establish various policy innovations for the management of the Environmental Study Tourism Park. By emphasizing the objectives of the policy, it is hoped that maximum benefits will be obtained, especially in terms of efforts to increase the knowledge, skills and attitudes of the community in environmental management.

II. Theoretical Framework

According to I Gusti (2011), the potential of tourist objects can be divided into natural and man-made tourist objects. Natural tourism objects can be in the form of climatic conditions (clean and cool air, pleasant temperature and sunshine, silence), natural scenery (magnificent mountain panoramas, waterfalls, typical lakes and rivers), and spring water for health (mineral water, hot water). Man-made tourist objects can be in the form of facilities or infrastructure, historical heritage and cultivation, community lifestyles and parks for recreation or sports.

According to the Law No. 5/1990 on Conservation of Natural Resources and Ecosystems, Nature Tourism Park is a nature conservation area which is mainly used for tourism and outdoor recreation. Meanwhile, the conservation area itself is an area with certain characteristics, both on land and in the waters that has a life support system, the preservation of the diversity of plant and animal species, and the sustainable use of its biological natural resources and ecosystem.

Natural tourism objects are the manifestation of human creation, the life system of arts and culture as well as the history of the nation and places or natural conditions that have an attraction to be visited. Furthermore, the Directorate of Nature Protection and Preservation (1979) believes that tourism objects are the advancement of the area and all of its contents as well as the aspects of exploitation which include maintenance and supervision of tourist areas. Tourism objects have physical element of the environment in the form of plants, animals, geomorphology, soil, water, air and so forth as well as an attribute of the environment which, according to human opinion, has certain values such as beauty, uniqueness, rarity, distinctiveness, diversity, natural landscape and environmental integrity.

According to Irwan (2007), urban tourism parks are green open spaces that have the main function of beauty and social interaction. The city parks as one of open green space also has the function of environmental control, while according Zoer'aini (1997), the city parks function is a function of landscape, environmental preservation and aesthetic. The functions of city parks are educational value, activity space and place for city facilities, aesthetic value, economic activities (Purnomohadi, 2006). The establishment of work partners as a form of concern for the environment and community participation belongs to all levels of society at all levels of education and social status, including community, social and religious organizations, non-governmental organizations and other elements of society. So as an effort to provide a forum and space for the community to participate in the environmental management efforts and at the same time to synergize the various potentials possessed by stakeholders, the Environmental Agency of Probolinggo City has facilitated, provided assistance and guidance from the establishment process to the implementation of the activities of environmental care work partners. Community concern for the environment is one of the challenges that underlie the birth of the management innovation of TWSL. The main change expected from society is the change of behavior and paradigm of society from negative to positive through community empowerment as well as collaboration with environmental organizations.

Djoeffanet al., (2010) states that strategic management of tourist objects and attractions in general is the management of tourist objects and attractions (DTW). This has been regulated in article 4 of Law 9/1999, which states that tourist objects and attractions consist of: a). tourism objects and attractions created by God in the form of natural conditions as well as flora and fauna; b). human-made tourist objects and attractions in the form of museums, ancient relics, historical heritage, cultural arts, agro tourism, water tourism, hunting tourism, nature adventure tourism, recreational parks and entertainment centers. Sungkowo in Desfandi, M. (2015) explains that various environmental problems that are increasingly out of control show that environmental education has not succeeded in establishing human character with environmental cares. This failure occurred due to a number of weaknesses in environmental education.

III. Research Methodology

This research was conducted in Mangunharjo Sub-district, Mayangan District, Probolinggo City, East Java Province, precisely in Mangunharjo Environmental Study Tourism Park. The decision on the research location was intentional, because the Environmental Study Tourism Park as an educational tourism site for the city of Probolinggo is a priority program of the City Government of Probolinggo in order to follow up on the explanation of article 29 paragraph 1 of Law of the Republic of Indonesia Number 26/2007 Concerning Spatial Planning that public green open space is a green open space owned and managed by the municipal government which is used for the benefit of the society in general.

The population is the whole object of research, so the population of this study is the visitors of Environmental Study Tourism Park and the surrounding community. The qualitative data obtained from key persons who were selected by purposive sampling, which is a sampling technique with certain considerations. The samples are persons who are considered to comprehend the development of the Environmental Study Tourism Park and comprehend the potentials in the research location, therefore there are 3 (three) samples selected in this study from the government and managers of the Environmental Study Tourism Park, namely: (1) Mayor of Probolinggo (2) Head of Probolinggo City Environmental Service, (3) Head of the UPT for Environmental Information and Education (IPLH) of the Environmental Service of Probolinggo City.

The qualitative research is using the principle of theoretical sampling. The theoretical sample according to Bogdan and Taylor (Creswell, 2013) is a group of populations, events, activities with differences and strategies that need to be known. Based on the principle of a theoretical sample, the initial research on research informants is determined based on the possibility of providing in-depth information so that in this case the key informants are the Head of the Sub-district, the Head of the Citizens Assosications (RW) and Neighborhood Associations (RT), community leaders, religious leaders and the manager of the Environmental Study Tourism Park. The next stage of informants selection is using the snowball sampling method (snowball sampling), by way of asking the informants about who is known or called directly or indirectly by informants. The addition of informants is done until it reaches saturation, that is, when the addition of data and analysis no longer contributes to finding something that is considered new (Strauss in Creswell, 2013).

Sources of data in this study; First, informants. The informant provides a response to what the researcher asks. Second, documents or archives, can be in the form of written material or formal records which are referred to as archives. The data used in this research is in the form of data collected through interviews with informants who are visitors to the Environmental Study Tourism Park, surrounding communities, community leaders, stakeholders, and managers of the Environmental Studies Tourism Park. In addition, the data used are also in the form of operational conservation of the development of the Environmental Study Tourism Park and documentation of its development activities.

Discussion

The City Government of Probolinggo, the Environmental Service together with Industry players throughout the City of Probolinggo who are members of the IMF (Informal Meeting Forum) then created a City Forest in the former Red area idle land for ecological, educational and socio-economic interests as the realization of public open space in the area urban area which developed into an Environmental Study Tourism Park (TWSL). Sustainable tourism is described as a tourism industry that has a commitment to have a mild impact on the environment, as well as helping local residents to earn income and create jobs. (Ernawati, 2010). Richard and Hall (2000) state that the reason for developing sustainable tourism is because it ensures the sustainability of economic, social and cultural benefits for the community and the environment. Sustainable tourism can be achieved if its activities include tourism development that does not damage the ecosystem (ecological sustainability), tourism development can be accepted by the local community without causing conflict (socio-cultural sustainability) and tourism activities can improve community welfare (economic sustainability).

Level of Public Knowledge and Awareness of Environmental Management

The development of a conservation education concept approach in TWSL locations is deliberately conceptualized and carried out flexibly in order to optimize the use of the potential of available resources which of course will affect the ecological considerations, because the phenomenon of ecological damage

may also result in damage to the economic and social order. An alternative and effective way to avoid this problem is to integrate conservation education at every stage of the TWSL development process. This of course must be set from the start through local policy products, so that the implementation process of the development from the beginning to the end of the TWSL operation will remain consistent and integrated with environmental conservation education, especially conservation education, as a form of increasing public knowledge and awareness of environmental management in the TWSL area.

The Environmental Study Tourism Park (TWSL), which is a City Forest Green Open Space, is a medium for recreation as well as learning the environment for the Probolinggo community which is managed by the City Government of Probolinggo under the auspices of the Probolinggo City Environmental Agency and UPT. Environmental Information and Education as the manager seeks a solution to the problem of declining community/visitor interest, in this case the school, to the introduction of flora and fauna in the area of the Environmental Study Tourism Park as a medium for environmental education.

The Head of the Probolinggo City Environmental Agency is the initial initiator to develop an Environmental Study Tourism Park as a medium for environmental education/earning for people inside and outside the City of Probolinggo. The hope is that the people of Probolinggo City do not travel out of town when spending their time off, but remain in Probolinggo City to visit the Environmental Studies Tourism Park (TWSL) to learn about the diverse flora and fauna there. Capitalizing on the development of environmental learning/environmental education which was dreamed by the head of DLH of Probolinggo City, a policy emerged to create an innovative tourism park management model so as to increase public knowledge and awareness about the environment.

Community concern for the environment is one of the challenges that underlie the birth of the management innovation of TWSL. The main change expected from society is an effort to increase knowledge and awareness from negative to positive through community empowerment as well as collaboration with environmental organizations.

Government Performance in Providing Services to the Community Regarding Information on Environmental Education

In an effort to improve services to the community in providing environmental information, providing public open space, accelerating awareness and concern for the management of environmental conservation and biodiversity in the Probolinggo City, the City Government of Probolinggo on September 15, 2006 has established an Environmental Study Tourism Park. TWSL is managed by the Technical Implementation Unit. Environmental Information and Education (UPT.IPLH) under the supervision of the Environmental Service of the Probolinggo City. The main function pillar of the Environmental Study Tourism Park is as an area for Green Open Space for the Public, as a conservation agency and as an environmental education tour.

Evaluation of the effectiveness and efficiency of conservation area management is defined as a study to determine how well the conservation area is being managed, especially in relation to protecting resources and achieving management objectives. The definition of management effectiveness according to Hockings et al. (2003) in Hermawan (2010) covers three topics, namely issues of conservation area design, problems of systems feasibility and management processes, and services from conservation. The design of the conservation area includes the size and shape of the area, management of the buffer zone and area corridors, ecological representation, and the area feasibility in carrying out its functions. As for the feasibility of the system and management process includes how management is carried out and responds to existing challenges, both from the aspects of planning, training and capacity building, community

relations and management implementation. Meanwhile, the service from the conservation area is the achievement of the goals that have been set for both biological and social aspects.

Environmental Education (PLH), which has been known to the public is only through a leaflet and an identity board attached to animal cages and trees. Meanwhile, the information on flora and fauna on the identity board only contains limited information and seems less attractive so that visitors are less interested in knowing this information. Thus, a more serious effort is needed in building and increasing human concern for the environment so as not to continue to damage and decrease environmental quality. This is where the importance of environmental communication management is to communicate public awareness and concern for the environment. Environmental communication is needed as an effort to communicate environmental sustainability through environmental communication strategies that can build community/industry awareness and concern for the environment.

Furthermore, in his book *Environmental Communication and the Public Sphere*, Robert Cox (2010) describes two functions of environmental communication: (1) Environmental communication is pragmatic. It is educational in nature and helps us solve environmental communication problems. Initially this was an instrument of communication that happened to us, communication in action. Problem solving and debate is often part of public education campaigns. (2) Environmental communication is constitutive. Environmental communication also helps in the representation of nature and environmental problems which are also subjects of understanding for us. By shaping our perceptions of nature, environmental communication invites us to see forests and rivers as threats or abundant wealth and also as vital life support systems and something to be appreciated.

Environmental communication is not an easy thing to do. In order for environmental communication to run smoothly, a communication strategy formulated by the communicator (TWSL manager) is needed, so that communication can be accepted and can change people's perspectives. The existence of TWSL in Probolinggo City is changing people's perceptions about the existence of urban forest in the former red area idle land to become a means of ecological, educational and socio-economic interests as a manifestation of public open space in urban areas and developing into an Environmental Study Tourism Park.

Evaluation of the Implementation of Environmental Study Tourism Park Management

Evaluation of management effectiveness is absolutely necessary to find out whether the activities carried out have gone according to the principles underlying management so that goals can be achieved or not (Ilman, 2008). According to Wardhana (2015), Evaluation of the effectiveness of conservation area management is defined as a study to determine how well the conservation area is being managed, especially in relation to protecting resources and achieving management objectives. Evaluation of management effectiveness can be defined as an effort to monitor activities or elements of management so that obstacles or things that hinder the process of achieving goals can be identified. Evaluation activities can direct a management so that it can be more effective and efficient in achieving goals.

Environmental Education and Information Integrated Service Unit, hereinafter referred to as UPT for Environmental Information and Education, is one of the regional technical implementation units of the Probolinggo City Environmental Education Service which has the function of providing environmental education services for the community. UPT IPLH also houses the Environmental Study Tourism Park, better known as TWSL as one of the educational tourism sites as a reference for environmental management education, scientific research, imitation studies, animal and fauna conservation and the introduction of environmental education for school-age children as well as a comfortable medium for family recreation.

The UPT for Environmental Information and Education has made efforts to improve its services to the community and fulfill permit obligations as a Conservation Institution in the form of a Animal Park in 2010 under the auspices of the Probolinggo City Environmental Service, whose management budget is through the APBD. The dependence of the operational budget on the APBD results in limited TWSL management and has an impact on reducing the number of visitors.

Conclusion

Based on the results of observations at the research location, it was found that the conservation program at TWSL was to introduce the community to the importance of keeping animals well protected and to invite the community to play an active role in environmental management. The performance of the government/management in providing services to the community regarding environmental education information is considered to be quite good enough because it is supported by certified experts in accordance with their fields and provide convenience to the community/educational institutions in terms of visiting and learning flora and fauna. Evaluation of the implementation of environmental education in TWSL is needed to improve the people services and interest in visiting TWSL by implementing SOP, providing briefings to the executive officers, providing training to officers to improve the competence, updating information, updating educational performance methods that is interesting and interactive, selecting officers who have competence and then from this evaluation it can be seen the success of the environmental education program in TWSL. The implementation of environmental communication in TWSL needs to be socialized so that the public knows about the conservation activity program in TWSL through communication media and through the community information center and activities in TWSL. It is necessary to evaluate the implementation of TWSL management to complement attractive facilities and infrastructure and evaluate the environmental conservation education curriculum in TWSL environment to improve the conservation education management model so that it is more focused and in accordance with the goals and objectives of the TWSL program.

References

- Budihardjo E., dan Sujarto D. 2005. Kota Berkelanjutan. Bandung: PT. Alumni.
- Creswell, J. W. 2013. Research Design: Pendekatan Kualitatif, Kuantitatif dan Mixed, Yogyakarta: Pustaka Pelajar.
- Djoeffan, S, H. 2010. Strategi Pengelolaan Kawasan Wisata Cagar Budaya Karangkamulyan di Kabupaten Ciamis, Prosiding SnaPP2010 Edisi Eksata, 216-217. ISSN: 2089-3582
- Ernawati, Ni Made. 2010. Tingkat Kesiapan Desa Tihingan-Klungkung, Bali Sebagai Tempat Wisata Berbasis Masyarakat. Jurnal Analisis Pariwisata. <http://fpar.unud.ac.id/ind/wp-content/uploads/2014/03/Jurnal-Analisis-Pariwisata-Vol.-10-No.-1-2010.pdf>. Hal. 1-8.
- Haifeng Li. 2015. Planning of Green Space Ecological Network in Urban Areas: An Example of Nanchang, China, Int. J. Environ. Res. Public Health 2015, 12, 12889-12904; doi:103390/ijerph121012889.
- Hermawan, M.T.T. 2010. Kajian Efektivitas Pengelolaan TN Gunung Merapi: Aplikasi RAPPAM, METT dan IDF untuk Mengukur Kinerja Pengelolaan Taman Nasional. Program hibah kompetensi institusi UGM. Yogyakarta: Jurusan Konservasi Sumberdaya Hutan.
- I Gusti Bagus Rai Utama., 2015. Agrowisata Sebagai Pariwisata Alternatif, <https://www.researchgate.net/publication/277074027>
- Ilman, M. 2008. Efektivitas Pengelolaan Kawasan Konservasi Lahan Basah Pesisir Indonesia. Thesis Pascasarjana Institut Pertanian Bogor. <http://repository.ipb.ac.id/handle/123456789/9938>
- Irwan, Z. D., 2007. Prinsip-prinsip Ekologi: Ekosistem Lingkungan dan Pelestarian. Jakarta: Bumi Aksara.

- Lundmark, L. J. T., P. Fredman, and K. Sandell. 2010. National parks and protected areas and the role for employment in tourism and forest sectors: a Swedish case. *Ecology and Society* 15(1): 19.
- Purnawan and Sudana. 2012. Wisata Edukasi Budaya Bali, *Majalah Publikasi IPTEKS Ngayah*, 3(4), 51-57, 2012.
- Purnomohadi, N., (2006). Ruang Terbuka Hijau Sebagai Unsur Utama Tata Ruang Kota. Direktorat Jenderal Penataan Ruang, Departemen Pekerjaan Umum.
- Richard, Grek dan Hall Dereck. 2000. *Tourism and Sustainable Community Development*. Routledge, London.
- Sudarwani M. M, Ekaputra Y. D, 2017. Kajian Penambahan Ruang Terbuka Hijau di Kota Semarang, *Jurnal Teknik Sipil & Perencanaan* 19 (1), 2017, 47 – 56, p-ISSN 1411-1772, e-ISSN 2503-1899
- Desfandi, M., 2015. “Mewujudkan Masyarakat Berkarakter Peduli Lingkungan Melalui Program Adiwiyata”, Universitas Syiah Kuala Banda Aceh. P-ISSN: 2356-1386, E-ISSN: 2442-9430.
- Wardhana, D. 2015. Mengenal Metode Penilaian Efektivitas Pengelolaan Kawasan Konservasi.
- Widodo Brontowiyono, et al., 2011. Urban Heat Islands Mitigation by Green Open Space (Gos) Canopy Improvement: A Case of Yogyakarta Urban Area (Yua), Indonesia, *international Journal of Technology* (2011) 3: 207-214 ISSN 2086-9614.
- Zoer`aini, D.I., 2005. *Tantangan Lingkungan dan Lansekap Hutan Kota*. Jakarta: Bumi Aksara.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).